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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,829	07/25/2001	Tsuyoshi Tamura	110196	6319

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 11/06/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,829

Applicant(s)

TAMURA, TSUYOSHI

Examiner

Kevin M. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,11,16,21 and 26 is/are rejected.
- 7) ☒ Claim(s) 2-5,7-10,12-15,17-20 and 22-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 8, 11, 12 6) ☐ Other: _____

DETAILED ACTION

The information disclosure statements filed 9/5/2001, 11/9/2001, 11/29/2002, and 5/9/2003 which have been placed in the application file, the information referred to therein has been considered as to the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamori (US 6,340,959) in view of Shimamoto (US 6,147,672).

As to claim 1, Inamori teaches a display device which includes a first port through which the still image data "GSP, SPS, LP, CLS, REV, REVVO", a second port through which a moving image data "RGB, PXCLK, Hsync, Vsync", a RAM (37), a first control circuit (36), and a second control (33), a LCD panel (22) (figure 2, columns 7 and 8). Inamori fails to teach a reception circuit which differentially amplifies the differential signal input from the second port and creates the moving image data in a parallel state. However, Shimamoto teaches a related LCD panel which includes a reception circuit (103) which differentially amplifies the differential signal input from the second port and creates the moving image data in a parallel state (see figure 10, column 8, lines 58-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the reception circuit (103) which differentially amplifies the differential

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signal input from the second port and creates the moving image data in a parallel state taught by Shimamoto for Inamori's display device because this would improve the quality of the image being displayed, while decreasing the clock frequency, and eliminating electromagnetic (column 8, lines 49-53 of Shimamoto).

As to claim 6, Shimamoto teaches the serial transfer line is a transfer line in accordance with an LVDS standard (column 3, lines 60-61).

2. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamori and Shimamoto as applied to claim 1 above, and further in view of Silverman et al (US 6,370,603).

As to claims 11 and 16, Inamori and Shimamoto teach all of the claimed limitations of claim 1, except for the serial transfer line is a transfer line in accordance with a USB standard and an IEEE 1394 standard. However, Silverman et al teaches the serial transfer line is a transfer line in accordance with a USB standard and an IEEE 1394 standard (column 8, lines 19-23). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the serial transfer line is a transfer line in accordance with a USB standard and an IEEE 1394 standard taught by Silverman et al for Inamori's and Shimamoto's display device because this would provide an improved technique for effecting digital communications between digital devices and system using different communication protocols (column 4, lines 10-13 of Silverman et al).

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3. Claims 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamori and Shimamoto as applied to claim 1 above, and further in view of Moughami et al (US 6,137,466).

As to claim 21, Inamori and Shimamoto teach all of the claimed limitations of claim 1, except for the RAM-incorporated driver, a column driver, a row driver. However, Moughami et al teaches the RAM (36)-incorporated column driver (34), a row driver (24) (see figure 1, column 2, lines 55-66). It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the RAM (36)-incorporated column driver (34), a row driver (24) taught by Moughami et al for Inamori's and Shimamoto's display device because this would improve the quality of the image being displayed, while reducing the power consumption (column 2, lines 24-27 of Moughanni et al).

As to claim 26, Inamori teaches an CPU (26) which supplied the command, the still image data, and the moving image data to the display unit (22) (figure 2, column 9, lines 52-58).

Allowable Subject Matter

4. Claims 2-5, 7-10, 12-15, 17-20 and 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Inamori and Shimamoto fail to teach a halt control circuit which receives with the differential signal a data validation signal indicating whether or not the differential

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signal is valid, and halts at least part of an operation of the reception circuit, based on the data validation signal.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-THU from 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen
Patent Examiner
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October 28, 2003



RICHARD NJORPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2003